

Response to Office Action
Dated January 29, 2003

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REMARKS

This is in response to the Office Action dated January 29, 2003. Reconsideration is respectfully requested.

Extension of Time

Applicant respectfully requests that the period for response be extended two months, from April 29, 2003 to June 30, 2003 (June 29, 2003 being a Sunday). A check in the amount of \$205 is enclosed to cover the extension fee pursuant to 37 CFR 1.17(a)(2).

Traversal of Restriction Requirement

Applicant hereby acknowledges the restriction requirement and affirms election of Group I, Claims 1-2. Applicant will cancel Claims 3-20, currently classified as "withdrawn", in the event that the Examiner refuses to withdraw the restriction.

Applicant respectfully traverses the restriction and notes that, according to the MPEP, Section 803, there are two criteria for a proper requirement for restriction:

- (1) the inventions must be independent or distinct as claimed; and
- (2) there must be a serious burden on the Examiner if restriction is required.

Applicant submits that there would not be a serious burden on the Examiner if both the article and the method were searched and examined in the same application due to the natural relationship between the article and its preferred method of manufacture as recited in the claims. Efficiencies related to searching may even be realized if both Groups I and II are examined together. Applicant, therefore, requests that

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the restriction requirement be withdrawn and all Claims 1, 3, 4, 7, 8 and 11-38 be examined.

In the Claims

Claims 1 and 2 were pending in the Action. Claim 1 is amended, Claim 2 is canceled and new Claims 21-38 have been added. Support for the new claims may be found in the application as indicated in the chart presented below.

| <u>New Claim</u> | <u>Page</u> | <u>Lines</u> | <u>Figure</u> |
|------------------|-------------|--------------|---------------|
| 21 | 8 | 16-30 | |
| 22 | 9 | 16-19 | |
| 23 | 8 | 7-13 | |
| 24 | 8 | 6-13 | |
| 25 | 4 | 15-22 | |
| 25 | 6 | 8-21 | |
| 26 | 9 | 10-11 | 1b, 2 |
| 27 | 9 | 10-11 | 1b, 2 |
| 28 | 12 | 19-30 | 2 |
| 29 | 12 | 19-30 | 2 |
| 30 | 8 | 16-30 | 3 |
| 31 | 6 | 8-10 | |
| 32 | 6 | 22-25 | |
| 33 | 6 | 10-12 | |
| 34 | 6 | 12-15 | |
| 35 | 6 | 10-12 | |
| 36 | 6 | 12-15 | |
| 37 | 6 | 12-15 | |
| 38 | 6 | 15-22 | |

It is noted for Claims 26-28 that the beads formed on the inner face 18b of overlapping portion 18a of cladding 18 are referred to as a "V-shaped channel" on page 8, at line 27. Figure 1b clearly shows longitudinally extending beads or

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channels in face 18b of overlapping portion 18a. No new matter has been added with the addition of new Claims 21-38.

Amendments to Drawings

In response to the objections to the drawings, applicant provides herewith Figures 1a, 1b, 2 and 3 amended in red ink and submitted for approval by the Examiner. The drawing amendments merely serve to renumber various parts of the invention which are disclosed in the description and figures as originally filed. The amendments to the description on pages 8 and 9 of the application make the description consistent with the amended drawings. No new matter has been added to either the drawings or the description.

Objections to the Specification

Applicant acknowledges the Examiner's objections to the Abstract and disclosure and the need for correction. Applicant respectfully requests that amendments to the disclosure and Abstract be held in abeyance until such time as patentable subject matter is found in the claims. Applicant will, at that time, submit a substitute specification in compliance with 37 CFR 1.125 effecting the corrections to overcome the Examiner's objections.

Summary of the Rejections

Claims 1 and 2 are rejected under 35 USC 112 as non-enabling and indefinite. Claims 1 and 2 are also rejected under 35 USC 102 as anticipated by Australian Patent No. AU-A1-59,354/80 to Williams. Applicant respectfully traverses the rejections under 35 USC 112 and 102. Applicant's traversal is supported by arguments provided below.

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Arguments Against Rejections Under 35 USC 112

Rejection of Claim 1 as non-enabling is based upon the Examiner's assertion that "there is no mention that the connection means should not include the hinged connection taught on page 7" of the specification. This statement is not accurate. There is clear teaching of hingeless attachment of the modules throughout the specification. Specifically, Figure 1b clearly shows insulation modules 10 and 20 in spaced relation without a hinge joining them. Joining of the modules 10 and 20 is described in the specification on page 12, lines 25-29, as follows:

One module 20 is then press fitted onto the pipe. The other module 10 is likewise fitted onto the pipe with overlapping portions 18a of the cladding fitting over the surface of the first module 20 to connect them together on interference fitting of bead 16 within channel 26.

When read in conjunction with the illustration provided by Figure 1b, the only reasonable conclusion one may draw is that the modules 10 and 20 are connected together without the use of a hinge, as there is no hinge shown or described, and the description of the process clearly rules out the use of a hinge for this embodiment with its reference to "overlapping portions" in the plural, both portions, numbered 18a, being shown extending from module 10 and being unattached to the opposing module 20. Clearly, there is teaching of a hingeless construction, the Examiner's remarks notwithstanding.

Furthermore, the application describes adjacent modules (for example, longitudinally adjacent modules referring to a series of telescoping modules along the length of pipe) are connected by sliding connection portions 19, 29 over end

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portions 110 and 120 until beads 17 cooperate and engage with complementary portions of beads or channels 16 to allow fastening together of the longitudinally disposed insulation modules (see page 9, line 20 et seq). Again, there is teaching of a way to effect connection of the modules which does not use a hinge.

Rejection of Claim 2 under 35 USC 112 is moot in view of the cancellation of that claim.

Claims 1 and 2 are further rejected under 35 USC 112 as being indefinite by the use of the term "connection means", which the Examiner asserts is not defined in the disclosure. However, a careful reading of the application shows that the term "connection means" is expressly defined on page 8, lines 7-15, as follows:

The overlapping portions 18a are connection means designed to overlap circumferentially with cladding layer 28 of another insulation module 20 of substantially similar construction to module 10 except that the insulation and cladding layers 24 and 28 are of substantially similar circumferential extent with contacting surfaces 14ba (sic, should read "14d") formed substantially flush with longitudinal edges of cladding layer 28. Other connection means of mechanical or chemical nature may be employed instead of, or additionally to, the connection means or (sic) overlapping portions 18a described.

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Further details of the structure and operation of the connection means are provided on page 12, lines 25-29, as follows:

One module 20 is then press fitted onto the pipe. The other module 10 is likewise fitted onto the pipe with overlapping portions 18a of the cladding fitting over the surface of the first module 20 to connect them together on interference fitting of bead 16 within channel 26.

The specification is replete with further descriptions of the connecting means which are also clearly illustrated in Figure 1b, and it is thus unreasonable to maintain a rejection of Claim 1 as indefinite in the face of the evidence presented confirming a clear and practical definition of "connection means", the Examiner's remarks to the contrary notwithstanding.

Claim 1 is also rejected as indefinite due to the term "shaped to" which the Examiner finds "vague and indefinite". To the contrary, the term is very easily understood by those of ordinary skill in the art as meaning that the cladding and insulation layers have a shape which is complementary to the item being insulated, this concept being so basic to the effective insulation of piping that one would think it would be immediately clear on its face and beyond serious explanation. The specification provides an example of what is meant by the concept of "shaped to" on page 12, lines 14-17, as follows:

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In the case of a bend or elbow, as described in relation to Figure 4, suitably shaped pre-forms of fiberglass and cladding material to accommodate the elbow are obtained and assembled in the same manner as modules 10 and 20 with cutting of the modules 30-80 to the requisite shape.

Thus, modules are shaped to an elbow shape to insulate an elbow pipe, and so forth. It should be noted that the term "shaped" is used in Williams (cited by the Examiner) on page 2, line 27, which provides additional evidence that this term is used and understood in the field of piping and insulation.

Claim 1 is also considered indefinite through the use of the term "part cylindrical", the Examiner stating that "it is not understood what is defined a part of a cylinder" (sic). Applicant respectfully submits that, contrary to the Examiner's assertion, the recitation is entirely clear, unambiguous and readily understood. The Examiner himself provides examples of what the term "part cylindrical" means contradicting his own assertion of indefiniteness. The application figures furthermore illustrate what is meant by the term. For practical reasons, the modules may have a cylindrical shape or a shape which is partly cylindrical as required to adapt to a particular need or situation. The fact that the module may also have a portion which is differently shaped is well within comprehension. Figure 1b shows examples of modules having part cylindrical shapes. The term itself is clear on its face and gives rise to no ambiguity, it is a description of the module shape.

Claim 2 is canceled, and thus the rejections to this claim as indefinite concerning the terms "overlapping" and

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"adjacent module" are moot. However, the Examiner states that the term "circumferential beads", which appears in new Claims 21, 22, 27 and 30 is not defined sufficiently in the specification. While there are multiple definitions, "bead" is appropriately defined in this context by Webster's Ninth New College Dictionary as "a projecting rim, band, or molding", and such a construct is clearly shown in cross section in original Figure 1a and denoted by reference characters 16 and 17. Contrary to the Examiner's statement, the term "circumferential beads" is expressly defined and illustrated in the specification in Figures 1a and on page 8, lines 16-23, as follows:

Thus module 10 is formed with circumferential beads 16 and 17; and module 20 with circumferential beads 26 and 27. The beads may be connected by longitudinally extending beads 126. Beads 16 and 26 are formed at ends 13 and 23 of modules 10 and 20. Beads 16, 17, 26 and 27, shown of V shape but other shapes are not excluded, strengthen the module and may act as water seals, preventing water ingress by capillary action. Beads 17 cooperate and engage with complementary portions of beads 27 to allow at least a partial locking together of the modules 10 and 20 as suggested by Figures 1b and 2.

The specification illustrates and describes what the beads look like, where they are positioned and how they function. While there may be some confusion as to particular reference characters identifying them, these difficulties are minor and are addressed in the amendments to the specification and the figures. The Examiner's remarks notwithstanding,

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there is no ambiguity, vagueness or indefiniteness associated with the term "circumferential beads" as amply demonstrated in the relevant parts of the specification and drawings.

Arguments Against Rejections Under 35 USC 102

Claim 1 is rejected under 35 USC 102 as anticipated by Williams. To anticipate a claim, the reference must teach every element of the claim (MPEP, Section 2131, Page 2100-69). Williams does not teach (a) insulating fibers sealed by a sealing agent; or (b) insulating fibers which are unstriated and have no specific orientation. Both of these elements are recited in Claim 1 and neither is taught or suggested in Williams.

It is unreasonable to posit, as the Examiner has done, that Williams inherently teaches that the fiberglass insulation is sealed by a sealing agent when there is absolutely no mention of a sealing agent in Williams, nor any teaching of the need to seal the fibers. Williams merely teaches that the fiberglass may be glued to the inside surface of its surrounding tubular sheathing. The cited reference is silent on sealing or sealing agents. It is respectfully asserted that the Examiner has used the applicant's own teachings in an improper hindsight reconstruction of applicant's invention to reject Claim 1 on the basis of Williams, which cannot reasonably be seen to anticipate Claim 1 either expressly or inherently in view of the lack of substantiating evidence to support the Examiner's position.

In failing to teach the aforementioned elements, the cited reference fails to meet the criteria necessary to support a rejection of Claim 1 or any of the other independent claims which recite these elements. Applicant respectfully requests that the Examiner point out where in Williams the

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aforementioned claim elements are disclosed or even remotely taught or suggested or withdraw the rejection.

Summary

Applicant has shown through the arguments presented above that the specification clearly provides an enabling basis in support of the claims, that the claim terms are unambiguously defined and that the cited reference fails to meet the requirements in support of the claim rejections. Applicant respectfully contends that the application is in condition for allowance and requests that it be passed to issue.

Respectfully submitted,

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